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| 10/599,027 | 09/18/2006 | Liwen Zhang | LIP-104US | 3215 |

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GLOBAL IP SERVICES
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| EXAMINER |
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HAMMER, KATIE L

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| ART UNIT | PAPER NUMBER |
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1761

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/599,027 | Applicant(s) ZHANG, LIWEN | |
| | Examiner KATIE L. HAMMER | Art Unit 1761 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 4,5,7-17 and 21 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 4,7,9 and 21 is/are rejected.
- 8) ☒ Claim(s) 5,8 and 10-17 is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This Office Action is in response to Applicant's Remarks filed on September 9, 2011. Claims 4-5, 7-17, and 21 are pending for examination. Claim 21 is newly added. Claims 1-3, 6, and 18-20 have been cancelled.

2. For ease of reference below, claim lines are numbered from the response filed on 9-9-2011, with line 1 being the first line of the referred to claim.

Response to Arguments

3. Applicant's arguments with respect to claims 4-5, 7-17, and 21 have been considered but are moot in view of the new ground(s) of rejection presented below.

Claim Objections

4. Claims 4 and 7 are objected to because of the following informalities:

As to claim 4, the following corrections should be made for proper grammar and form: Line 8, "collage" should be replaced by "collagen". Line 10, "is" should be replaced by "are". Line 11, "having" should be replaced by "has". Line 13, "selected from" should be replaced by "comprising".

As to claim 7, lines 2-4 should be rewritten "...the assorting has steps including first separating the loosened dispersing collagen fibers ~~{are separated}~~ by wind, distributing longer fibers ~~{are distributed}~~ into a different zone from that of..."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4, 7, 9, 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is generally narrative and indefinite, failing to conform with current U.S. practice. It appears to be a literal translation into English from a foreign document and is replete with grammatical errors. Specifically, the steps of the process and the order in which they occur is very unclear in the claim language from line 10 to line 21. There should be a series of process steps listed and claimed using active method steps (verbs ending in -ing to begin the line). What does the phrase "the liquid makes the tanned leather materials expanding" in lines 17-18 mean? When does this particular step occur in relation to the above steps? In lines 18-21, "the beater makes adhesive substances of fiber matrix among the collagen to become lubricating agent under repeated beating the tanned leather materials" is very confusing, vague, and improper grammar. This reads as an end result statement, not an active method step, which is improper. Further, when do the steps of lines 18-21 occur in the process? It is suggested that the claimed process steps be written in the order that they occur with proper spacing or numbering of steps for clarity.

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Claim 9 recites the limitation "bunchy" in line 2. There is insufficient antecedent basis for this limitation in the claim, as the process of claim 4 no longer claims **bunchy** collagen fibers.

As to claim 21, lines 6-8, "following the process for manufacturing yarn of animal collagen fiber from hides of claim 4 except the first step of choosing tanned leathers as raw materials" are improper format. The applicable process steps of claim 4 (as amended based upon the 112, second paragraph rejections above) should be rewritten into independent claim 21 to clearly define the claimed process and claim scope.

Appropriate correction/clarification is required.

Allowable Subject Matter

6. Claims 4 and 21 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 5 and 7-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

As to claim 4, Steffan and Sakashita do not teach or fairly suggest the claimed process comprising choosing tanned leather as raw materials, using the claimed liquid opener to expand the tanned leather materials, beating the fiber matrix and tanned leathers to become a lubricating agent and make adhesive substances to form the bundles of leather fibers, nor a container for the loosening process to take place.

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As to claim 5, Fujii teaches a method for solubilizing insoluble collagen fibers and does not overcome the deficiencies of Steffan and Sakashita, nor does it teach the preparation steps for the tanned leather materials claimed in claim 5. As to claim 7, it is noted that the meaning of "wind" was misinterpreted as winding about a metal bar instead of loosening by a gust of wind, and therefore Ueda et al. does not apply to the claimed process.

Accordingly, the pending claims would be allowable over the previously described prior art rejections once the newly applied U.S.C. 112, second paragraph rejections are overcome.

Suggested Amended Claim Language

7. To hopefully expedite prosecution, possible replacement claim language for claim 4 is as follows:

"A process for manufacturing yarn of animal collagen fiber comprising: (1) choosing tanned leather as raw materials; (2) loosening the tanned leather materials to get collagen fibers, wherein the tanned leather is loosened by a reciprocating liquid opener, which has a container, a beater, and liquid, wherein the liquid comprises water and at least one substance added to the water comprising 0.2-2 percent (by weight of water) lipid or product thereof, 0.2-1.5 percent (by weight of water) penetrating agent and 0.03-0.5 percent (by weight of water) basic substances and said liquid expands the tanned leather materials; (3) assorting the collagen fibers; (4) blending the collagen

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fibers with textile fibers; (5) carding, drawing, and twisting the blended collagen and textile fibers."

Applicants should add the limitation in lines 18-21 "the beater makes adhesive substances of fiber matrix among the collagen fibers to become lubricating agent under repeated beating the tanned leather materials" in the order that is appropriate in the claimed process steps, and in active method steps, not an end result statement.

Claim 21 should also be amended in a similar manner, but with the inclusion of choosing animal skins as the raw materials, et al.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATIE L. HAMMER whose telephone number is (571)270-7342. The examiner can normally be reached on Monday to Friday, 9:30amEST to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harold Y Pyon/
Supervisory Patent Examiner, Art Unit 1761

/KLH/
Katie L. Hammer
Art Unit 1761
January 31, 2012